

ABSTRACT OF THE DISCLOSURE

Separate leads and a common lead are provided on the upper and lower surfaces of a substrate. A plurality of LED elements are disposed in an array on the common lead on the upper surface of the substrate. The common lead provided on the upper surface of the substrate is connected to the common lead provided on the lower surface of the substrate through through-hole plating. Heat generated from the plurality of LED elements is transferred through the common lead provided on the upper surface of the substrate and the through-hole plating to the common lead provided on the lower surface of the substrate and is released therefrom into the air. By virtue of this construction, an light emitting device can be realized in which heat radiating properties are homogenized, heat radiation efficiency is improved, and a compact structure is obtained and, thus, the color balance is improved and unfavorable phenomena such as lowering in the output of light emitting elements and shortening of the service life are avoided.

Patent 6,634,650